

UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS

Washington, D.C. 20231

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. 09/014,341 01/27/98 INVIE J 53929USA3A EXAMINER . IM22/0909 STEPHEN W. BUCKINGHAM NAKARANI, D 3M OFFICE OF INTELLECTUAL ART UNIT PAPER NUMBER PROPERTY COUNSEL PO BOX 33427 1773 ST PAUL MN 55133-3427 DATE MAILED: 09/09/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No. 09/014,341

Applicant(s)

Invie et al

on Summary Examiner

D. S. Nakarani

Group Art Unit

1773

□ Responsive to communication(s) filed on Jan 27, 1999	
☐ This action is FINAL .	
Since this application is in condition for allowance except for in accordance with the practice under Ex parte Quayle, 1935	
A shortened statutory period for response to this action is set to is longer, from the mailing date of this communication. Failure to application to become abandoned. (35 U.S.C. § 133). Extension 37 CFR 1.136(a).	o respond within the period for response will cause the
Disposition of Claims	
X Claim(s) 1-39	is/are pending in the application.
Of the above, claim(s)	is/are withdrawn from consideration.
☐ Claim(s)	is/are allowed.
	is/are rejected.
☐ Claim(s)	is/are objected to.
☐ Claims	
Application Papers	
☐ See the attached Notice of Draftsperson's Patent Drawing	Review, PTO-948.
☐ The drawing(s) filed on is/are objecte	ed to by the Examiner.
☐ The proposed drawing correction, filed on	is 🗀 approved 🗀 disapproved.
☐ The specification is objected to by the Examiner.	
$\hfill\Box$ The oath or declaration is objected to by the Examiner.	
Priority under 35 U.S.C. § 119 Acknowledgement is made of a claim for foreign priority u All Some* None of the CERTIFIED copies of received. received in Application No. (Series Code/Serial Number received in this national stage application from the left certified copies not received:	the priority documents have been
Acknowledgement is made of a claim for domestic priority	under 35 U.S.C. § 119(e).
Attachment(s) ☐ Notice of References Cited, PTO-892 ☒ Information Disclosure Statement(s), PTO-1449, Paper No. ☐ Interview Summary, PTO-413 ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Notice of Informal Patent Application, PTO-152	
SEE OFFICE ACTION ON TH	HE FOLLOWING PAGES

Art Unit: 1700

(1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

(2) Claims 1-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 9-11, the phrases "lower alkyl group", "lower alkoxy group" and "lower acyloxy group" renders claims indefinite. Which alkyl, alkoxy or acyloxy groups are considered as lower "alkyl group", "lower alkoxy group" or "lower acyloxy group"? Lower compared to what?

Claim 7, line 3, the phrase "Y is a lower alkoxy group" renders claim indefinite. Which alkoxy group is "a lower alkoxy group"? Lower compared to what?

Claim 9, line 5, the word "and" should read --or-- for proper Markush group language.

Claim 10, lines 5 and 7, the word "and" should read --or-for proper Markush group.

Art Unit: 1700

Claim 13, lines 8-9, the phrases "lower alkyl group", "lower alkoxy group" and "lower acyloxy group" renders claims indefinite for the same reasons as for claim 1 above.

Claim 14, line 3, the word "and" should read --or-- for proper Markush group.

Claim 15, lines 9-10, the phrases "lower alkyl group", "lower alkoxy group" and "lower acyloxy group" renders claims indefinite for the same reasons as for claim 1.

Claim 16, line 3, the word "and" should read --or-- for proper Markush group.

Claim 17, lines 5 and 7, the word "and" should read --or--for proper Markush group.

Claim 24, line 2, phrase "soft roll" renders claim indefinite. Which roll is considered a "soft roll"? Soft compared to what? What is soft?

Claim 26, line 2, the word "and" should read --or-- for proper Markush group.

Claim 29, line 4, the phrase "an antisoiling coating" renders claims indefinite since its location in respect to antireflective coating is unclear.

Art Unit: 1700

Claim 32, lines 8 and 9, the phrases "lower alkyl group", "lower alkoxy group" and "lower acyloxy group" renders claims indefinite for the same reasons as for claim 1.

Claim 33, lines 1-2, the phrase "R¹ group contains heteroatoms or functional groups" renders claim indefinite because claim 33 depends from claim 32. The claim 32 define R¹ is a divalent alkylene group (i.e. C_nH_{2n-1}-group) or arylene group (i.e. derived from an aromatic hydrocarbon by the removal of two hydrogen atom, e.g. C₆H₄=phenylene). What is meant by "alkylene group or arlyene group contains heteroatoms or functional groups"? When alkylene group or arylene group contains heteroatoms or functional groups, is it called an alkylene group or an arylene group?

Claim 34, lines 1-2, the phrase "R¹ is a divalent hydrocarbon containing at least one functional group" renders claim confusing for the same reasons as for claim 33.

Claims 35 and 36, line 2, the phrase "flexible organic polymeric material" renders claim indefinite. Which organic polymeric material is considered as "flexible organic polymeric material"? Any polymeric material will flex if enough force is applied to it.

Art Unit: 1700

(3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (4) (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (5) Claims 1-10, 12-29 and 32-38 are rejected under 35
 U.S.C. 102(b) as being anticipated by Ochiai et al. (EP 0749021 A2).

Ochiai et al. disclose an antireflection filter comprising substrate such as glass, plastics, etc (page 2, lines 50-54) coated or uncoated with hard coating (page 3 lines 2-5), antireflective layer is made of metal oxide (page 4 lines 7-13) and stain proofing layer formed using silane having number average molecular weight of 500 to 100,000 and has perfluorogroups. The silane of Ochai et al. meets claimed silane compounds of instant disclosure. The thickness of stain proofing layer is from 0.001 to 0.03 micron (i.e 10 angstrom to 300 angstrom) disclosed (page 4, lines 14-59). Ochiai et al. also disclosed coating process such as roll coating, graver coating, etc. The limitations specifically not disclosed in the disclosure are deemed to be there since silane compound, solvents

Art Unit: 1700

and coating methods are same as disclosed in the instant disclosure and are conventional.

- (6) Receipt of Information Disclosure Statements filed June 1, 1998, June 29, 1998, August 31, 1998 and November 2, 1998 is acknowledged and all references have been made of record. The Japanese documents with abstract only have been considered to the extent of the provided abstract. The Japanese document 10-26701 translation listed on PTOL 1449 submitted on August 31, 1998 has been crossed-out to prevent duplicate citation. This reference has been made of record on PTOL 1449 submitted June 1, 1998 wherein (abstract only) has been crossed out and indicated as with translation.
- (7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to D.S. Nakarani whose telephone number is (703) 308-2413. The examiner can normally be reached on Tuesday-Friday from 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Paul J. Thibodeau, can be reached on (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7718 or 305-3601.

Application/Control Number: 09/014,341

Page 7

Art Unit: 1700

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Nakarani/JW September 8, 1999

D. S. NAKARANI PRIMARY EXAMINER